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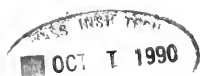
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Japanese Investment and Influence in Thai Development

Nobuko Ichikawa, Michael A. Cusumano,  
and Karen R. Polenske

Massachusetts Institute of Technology  
Sloan School WP# 3182-90/BPS

Draft: July 18, 1990



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## SUMMARY

Economic planners and government officials in Thailand face a major decision: whether to encourage a NIC's (Newly Industrialized Country) type of strategy based on manufacturing exports from the urbanized central region, which will probably require increasing dependence on foreign investment and technology, especially from Japan; or follow a NAIC's (Newly Agro-Industrialized Country) type of strategy based on agro-industry exports, which will probably mean less rapid growth overall but an improvement in rural conditions as well as more independence through investment from internal sources. This article examines this choice from the perspective of Thailand as well as Japan, its largest source of aid and foreign investment. We argue that a combination of manufacturing and agro-industries is necessary for continued development and that this will require more cooperation between Thailand and Japan as well as more Japanese assistance.

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## 1. INTRODUCTION

Economists as well as foreign investors often consider Thailand to be the country most likely to catch up with Asia's Newly Industrialized Countries (NICs), primarily Korea and Taiwan, which have grown rapidly since the 1960s by exporting manufactured goods rather than agricultural products. Thailand has been one of the fastest growing countries in the world, with much of its growth supported by manufacturing investments and output (Table 1). It also continues to be a promising site for foreign investment because of high growth without much inflation, unstable exchange rates, or political turmoil, at least in comparison to many other developing countries.

[Table 1 here]

Japan has led the way in foreign investments, focusing on export-oriented manufacturing sectors, such as electrical and electronics products as well as chemical and non-metal goods. Total new and additional investment (unadjusted for inflation) from Japan rose from \$48 million in 1985 to \$859 million in 1988 (Ministry of Foreign Affairs, 1988; Keizai Koho Center, 1989). The total stock of Japanese investments in Thailand by mid-1989 had reached \$3.5 billion, compared to merely \$871 million for the next largest investor, Taiwan (Sanger, 1990).

Despite this record of growth and new investment, however, economic planners and government officials in Thailand, as well as Japanese government agencies, research institutes, and companies, have found themselves in a debate of critical importance to the future of Thailand: whether to encourage a NIC's type of development based on manufacturing exports from the urbanized central region, or encourage a NAIC's (Newly Agro-Industrialized Country) type of development based on exports from "agro-industries" (the processing of agricultural products). Although the two approaches need not be mutually

exclusive, the dilemma within Thailand is that many groups want to take advantage of Japanese investment, which is concentrated in manufacturing sectors located in the central region of Thailand, but this type of investment tends to worsen urban problems already existing in the Bangkok area and does little to solve equally pressing problems related to rural poverty. In addition, Thailand may not have the economic resources to build sufficient infrastructure needed for industrial-based development such as required by foreign, especially Japanese, manufacturing investments.

This article examines the conditions and policies influencing the course of Thailand's economic development primarily from the perspective of Thailand's biggest investor and foreign-aid donor -- Japan -- in order to understand the probable course of economic development in Thailand as well as the impact of Japanese public and private investment on Thai development. The major argument is that a combination of elements are pushing Thailand in potentially opposite directions, with Japanese investments especially making a heavier emphasis on export-oriented manufacturing a likely path, even though domestic conditions suggest a slower, mixed approach, combining agro-businesses with some manufacturing, may actually be the wisest strategy to follow.

## **2. INTERNAL FACTORS INFLUENCING THAI DEVELOPMENT**

Two internal factors have had an important impact on Thai development and encouraged a mixture of manufacturing-based and agriculture-based development. One, political stability, has helped make Thailand the most attractive location for Japanese investors moving operations to Asia. A second, the Thai agricultural sector, has contributed cheap labor and food as well as surplus capital to support manufacturing investments while also providing raw

materials and finished products for agro-industries. Numerous problems remain in the agricultural sector, however, and these have contributed to urban problems as a result of migration into the Bangkok area.

### **(a) Political Stability**

In 1988, the Japanese Chamber of Commerce in Bangkok recorded the largest number of registered members among the ASEAN<sup>1</sup> countries (Japanese Chamber of Commerce in Bangkok, 1989b). This reflects the attractiveness of Thailand to Japanese firms as a place for investment in Southeast Asia. Abundant, cheap, and hard-working labor, a history of successful economic performance with stable exchange rates and low inflation, cultural traditions familiar to the Japanese, and the foreign-investment promotion policies of the Thai government, including tax policies allowing foreign firms to remit most of their profits back to their home countries (Smith, 1989a), are among the reasons frequently cited for Thailand's popularity. In addition, economic growth stimulated by the Vietnam War created a high demand in Thailand during the 1960s and early 1970s for Japanese goods, which Japanese firms had to produce locally because of the Thai government's import-substitution policies. Compared to most other countries in East and Southeast Asia, Japan also maintained relatively good political relations with Thailand, which it did not colonize during World War II (Yamashita et al., 1989).

Of equal or greater importance than these factors appeared to be Thailand's political stability, at least in comparison to other countries in Southeast and East Asia. In the 1980s, the Philippines, Korea, Taiwan, and China all faced strong political challenges against state control and political

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<sup>1</sup> ASEAN is an abbreviation for the Association of Southeast Asian Nations. Members, in addition to Thailand, include Indonesia, the Philippines, Malaysia, Singapore, and Brunei.

corruption. Malaysia and Indonesia encountered less political turmoil in this decade, although they faced internal problems stemming from racial and religious conflicts among their ethnically diverse populations. In contrast to these neighboring countries, Thailand's constitutional monarchy, along with harmony between ethnic Chinese and native Thai, who shared Buddhism as the dominant religion, seemed to create a social and political environment amenable to economic investment.

The ouster of Thailand's military dictators in 1973 also contributed to changes in the Thai political system in that organized groups, such as university students, urban workers, and farmers, which historically had been silent in Thailand, suddenly gained national influence. Even though the country experienced another military takeover in 1976, Thailand successfully reduced the impact of the military on decision making for economic and social planning (Suehiro, 1985). Supported by the popularity of the civilian Chatichai administration that came to power in 1988, the public political role of the military continued to decline in the late 1980s (Tasker, 1989). As part of this political evolution, it also appears that a consensus has emerged among the different groups now active in Thai politics that democratization as well as economic development are necessary for Thailand to prosper in the future.

At the same time, however, rapid industrialization and urbanization, particularly in Bangkok and surrounding areas, has caused serious problems for the Thai government that may threaten this economic success and political stability. These problems include poor housing conditions, crowded buses, air and water pollution, and recurrent floods worsened by land sinking from the digging of deep industrial wells (National Economic and Social Development Board, 1986a). In addition, activism among Thai labor unions, especially at state-owned enterprises faced with government privatization plans, appeared to

be on the rise (International Labor Organization, 1987; Paisal, 1988; Tasaka, 1989; Handley, 1989).

### **(b) The Agricultural Sector**

The Thai agricultural sector has supported industrialization in several ways. Increases in agricultural production have helped expand national income and government revenues, creating surplus capital for investment. Agriculture has also provided cheap food and labor for the manufacturing sector. In addition, Thai agriculture has carried out a unique role as a source of increasingly diversified exports, beginning with traditional products such as rice and rubber; post-World War II products, such as maize, tapioca, kenaf, and sugar; and then recent products, such as canned fruit and frozen chicken. In fact, Thailand is one of only a few food exporters among developing countries. In 1988, 105 billion baht worth of agricultural products out of 248 billion baht in gross domestic agricultural output were exported (42% of agricultural output). Agricultural and marine product exports were decreasing in their share of total exports, but represented 43% in 1985 and 31% in 1988. In terms of export items, in 1988, rice (35 billion baht), rubber (26 billion), and tapioka (22 billion) occupied second, third, and fourth positions, respectively, following textile products (58 billion) (Thailand Development Research Institute Foundation, 1989).

Yet the traditional and the post-war agricultural exports seemed to have reached a limit in the 1980s, because some countries that formerly imported large quantities of food achieved self-sufficiency, increasing competition among food exporters (Ishida, 1988). Thai companies and government officials were trying to manage this situation by further diversifying Thailand's agricultural products as well as attempting skillful marketing efforts. Recent increases in the export of chicken, shrimp, and other canned foods suggest that this

approach has worked and Thailand has the potential to increase agro-industry exports even further, which would help bring needed income to farmers in rural areas as well as earn foreign currency. Particularly important to this trend have been the emergence of large plantations, especially for palm cultivation, actively promoted by the Thai government's Board of Investment and run by agro-businesses owned by Thai or by joint ventures with foreign investors, and the formation of integrated production and distribution organizations that have made serious efforts to improve production technology and international marketing, as observed in the chicken (broiler) industry (Shigetomi, 1987; Suehiro, 1987b; Viraphong, 1989).

Yet, although the agricultural sector has contributed to the development of the Thai economy in various ways, rural poverty has continued and this has caused difficulties not only in agricultural areas but in urban areas as well, due to the migration of farm workers. One problem is that government policies have kept prices of food low and manufactured goods high, a process that tends to transfer surplus capital from agriculture to manufacturing sectors. In spite of rapid increases in productivity for manufacturing relative to agriculture, the government protects import-substitution manufacturing products through a high import tax and regulation of the number of companies in one field; this keeps prices for these manufactured goods high, while there are no similar measures for agricultural products.

In addition, although the government's official policy changed from supporting import-substitute industrialization to export-oriented industrialization in the early 1970s, among manufacturing sectors, so far only the textile industry has been able to compete internationally, partly because of measures favoring import-substitution industries. Furthermore, in 1987, the average monthly wage for private employment in the agricultural sector was merely



1,106 baht, compared to 2,137 baht in the manufacturing sector (National Statistical Office, 1987). The producers' price index for the manufacturing sector has also been consistently higher than that for agriculture (Japanese Chamber of Commerce in Bangkok, 1989a). Thus, while favoring domestic manufacturing over agriculture may have concentrated capital useful for industrial investments, Thailand has yet to develop its own manufacturing exports, while this policy may also have prevented the agricultural sector from increasing prices and accumulating capital it needs for further investment.

Investment in agriculture is important because this sector is still the major source of employment in Thailand, accounting for 67% of total employment as late as 1986, the last year for which complete data are available (Table 2). Although the percentage of employment in agriculture has been declining, the absolute number of people working in this sector was still increasing, rising from just under 16 million in 1980 to approximately 17.8 million in 1986. Furthermore, according to the sixth National Social and Economic Development Plan (1986-1991), approximately 3.9 million new workers are expected to enter the labor market (National Economic and Social Development Board, 1986b). It is unlikely that non-agricultural sectors can provide enough employment to absorb these new workers as well as people expected to leave rural areas, especially if productivity and incomes in the agricultural sector do not improve. As seen in a comparison of Tables 1 and 2, agriculture, which occupied more than two-thirds of the employed population, accounted for less than 17% of Thailand's gross domestic product in the mid-1980s, as opposed to more than 20% for manufacturing, which accounted for merely 8% of the employed population.

[Table 2 here]

### **(c) Continuing Rural (and Urban) Problems**

Data on the level of urbanization (defined as the ratio of population living in municipal areas compared to the total population) and domestic population immigration, land tenancy, the amount of virgin land available for cultivation, as well as land productivity, all indicate that neglecting rural development has created serious problems for Thailand in both rural and urban regions, with dramatic increases in the number of people moving into metropolitan Bangkok from agricultural areas. Even in 1985, Thailand was a relatively rural society compared to other ASEAN countries, where the level of urbanization was 25% in Indonesia, 38% in Malaysia, and 40% in the Philippines. In Thailand it was merely 18% (Asian Development Bank, 1989), although this represented an increase from approximately 13% in both 1970 and in 1960 (National Statistical Office, 1960 and 1970).

The 1980 census data, however, show clearly that there was far more migration from rural and urban communities to the Bangkok Metropolitan Area and the surrounding region than from one rural area to another or from urban to rural areas. For example, the net inflow of migrants to the Bangkok Metropolitan Area and the surrounding five prefectures accounted for 90% of the country's net migrants from 1975 to 1980 (National Statistical Office, 1980 and National Economic and Social Development Board, 1986a). The total population in the Bangkok Metropolitan Area (including Thon Buri) thus increased from 2.1 million in 1960 to 5.8 million in 1986, only part of which came from natural population growth. From 1970 to 1986, the annual population growth rate in the Bangkok Metropolitan Area averaged 3.5%, compared to 2.5% for the whole nation. During this period roughly 44% of the population growth in the Bangkok Metropolitan Area can be attributed to migration (National

Economic and Social Development Board, 1986a).<sup>2</sup>

Other evidence of the rise in rural poverty has been growing land tenancy (the percentage of agricultural land rented rather than owned by those who worked it), which rose 42% in area nationwide from 1975 to 1986 (Table 3). In 1975, in the Central Region, 41% of all farms consisted of rented land; these percentages were 27% in the North Region, 17% in the South, and 9% in the Northeast (Suehiro, 1980). By region, the Northeast, the major source of immigrants into Bangkok according to the 1980 census, experienced the largest increase after 1975, estimated to be as much as 152%. Because Thai farm statistics exclude non-land holders who are rural residents, these numbers suggest a shift to land-holding levels inadequate to feed a family (generally considered to be 25 rai for an average family).

[Table 3 here]

Responding to the increase in land tenancy, in 1975 the Thai government issued a land reform law that gave farmers cultivating land owned by the government legal title as well as purchased land for distribution. Land affected amounted to 7.6 million rai, of which 5 million was public land and 2.6 million was privately owned. By 1989, the reforms had transferred 3.1 million rai or 40% of the targeted land. The Agricultural Land Reform Office (ALRO) also earmarked 2.7 million rai or 54% of all public land for distribution to poor farmers. In addition, ALRO has purchased 361,830 rai or 14% of the privately owned targeted land and rented 67% of it to farmers while reselling 12% on a "hire-purchase" basis and leaving 21% not allocated (Preyaluk, 1989a).

This effort, however, has had limited results. Privately owned land

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<sup>2</sup> Data for 1960, 1970, and 1980 are from the annual censuses. Data for 1986 are from projections by the Working Group on Population Projections, comprising NESDB, NSO, and the Institute of Population Studies, Chulalongkorn University.

targeted for distribution to farmers, which reduces their rent payments to landlords, amounted to merely 14% of total land under tenancy in 1986 (Preyaluk, 1989a). In addition, much of the publicly owned land that was distributed merely legalized the position of farmers illegally cultivating land, and so the incomes of these people did not change. The land reform also did not solve the problem of high land rents in certain areas. For example, while in the Central Region, non-resident landlords dominate and there is a high concentration of land tenancy but with relatively low rents, in part of the North, there are more resident landlords, but they continued to impose higher rents on tenants (Suehiro, 1980).

At the same time, distribution of publicly owned land along with increases in the rural population as well as extensive commercial logging have destroyed Thailand's forests, which covered 53% of the nation in 1961 and perhaps as little as 29% in the late 1980s (Suehiro, 1980; Norani, 1989). This was the lowest figure among the ASEAN countries, with the exception of heavily urbanized Singapore (Economic and Social Commission for Asia and the Pacific, 1988). The destruction of forests causes various problems: damaged watersheds, increased possibilities for flooding and soil erosion, reductions in the quantity and quality of water, as well as potential damage to animals dependent on the forests. These problems became so serious that in January 1989 the Thai government officially banned commercial logging, although this has been difficult to enforce (Norani, 1989).

Furthermore, while land has become scarcer for farmers, rural incomes have suffered from little growth in output and agricultural productivity. While total paddy production in Thailand between 1976 and 1985 grew from 15 million metric tons to only 20 million, the average yield in paddy fields rose from 1,825 kilogram per hectare in 1975 to merely 2,052 kilogram per hectare in 1986. In

contrast to the total output growth of 35%, land yield grew only by 12%. Cultivated land per capita has stayed the same, at 0.38 hectares in both 1970 and 1985. This suggests that the increase of rice production came mainly from the expansion both of the population cultivating rice fields and land area available for cultivation, not from productivity growth. In fact, Thailand had one of the lowest levels of productivity in paddy cultivation among developing countries, with output levels less than half of China and merely a third of South Korea, as well as behind countries such as Afghanistan and India (Table 4). In addition, Thai farmers in the 1980s suffered from sharp declines in the international market price for rice, which fell from about \$424 per metric in 1980 to \$216 in 1985 (nominal values), as well as for maize, casaba, and sugar cane (Asian Development Bank, 1989).

[Table 4 here]

The cultivation of different cash crops has diversified Thai agriculture and created valuable export items, while skillful operations and marketing by Thai agro-businesses have increased Thai agricultural production and exports. Yet the limited results of these efforts, as well as of land reform, have failed to solve problems such as land tenancy, low productivity in agriculture, and massive migration to Thailand's capital city. The Thai government is aware of these problems but has placed more emphasis on developing Thailand's urban and industrial infrastructure rather than agriculture. This policy has been especially evident in expensive examples such as the government's on-going Eastern Seaboard projects, which contain a natural-gas refinery, a fertilizer plant, two ports, and two industrial parks. Some Thai government officials have also insisted that large migrations from rural areas, especially from the Northeast, together with the expansion of cultivated land, have prevented land fragmentation and raised per capita rural incomes, because migrants are

generally surplus agricultural workers. This view acknowledges the Bangkok Metropolitan Area and the surrounding five prefectures as the center of growth in Thailand and emphasizes the benefits of improving this urban area, where most industry and growth are concentrated, at the expense of agricultural regions (National Economic and Social Development Board, 1986b).

### **3. EXTERNAL FACTORS INFLUENCING THAI DEVELOPMENT**

Whether export-oriented industries can create enough employment to absorb rural migrants is not clear, and this is why government officials and others see external investment from countries such as Japan as critical to Thailand's continued economic development and perhaps political stability as well. Japanese investment, however, has not only grown over time but gradually shifted from an emphasis on agriculture and natural resources to manufacturing. Related to Thailand's appeal and the increase in manufacturing-oriented investments has been growing political pressure on Japan to import more manufacturing goods and the emergence of Thailand as well as other countries in Southeast Asia as manufacturing bases for multinational firms from Japan and other developed countries as well as from the NICs.

#### **(a) Japanese Investments**

Japanese overseas investments started to grow mainly after the late 1960s, along with rapid economic growth at home, movement of Japanese companies into international markets, improvement in Japan's balance of payments, and decisions in the Japanese government to allow more foreign investment. In the second half of the 1970s, Japanese direct investments abroad ranged between \$3 and \$5 billion per year, but, in the first half of the 1980s, they jumped to

approximately \$8 billion per year (nominal values) as the yen rose in value and made overseas assets appear relatively inexpensive and production costs in Japan high (Organization for Economic Cooperation and Development, 1987). Japanese direct investment overseas in 1986 alone increased by 83% to over \$22 billion and in 1988 reached 47 billion dollars.

In terms of Japan's foreign investment stock, valued at more than \$186 billion as of July 1989, North America represented the biggest share (\$75 billion), followed by Asia, Latin America, Europe, and Oceania and Africa, respectively, with between \$30 and \$32 billion invested in each area. After North America, Asia also represented by far the largest site for Japan's overseas manufacturing operations, with more than \$12 billion worth of investments (Table 5).

[Table 5 here]

In terms of the number of companies investing, Asia actually exceeded North America as a site for Japanese investment. As of 1988, Asia accounted for 37% of the cumulative number of Japanese firms investing abroad, compared to 29% for North America (Toyo keizai, 1990). In absolute terms, Japanese investments in Asia increased from \$1.4 billion in 1985 to nearly \$5.6 billion in 1988, primarily due to investments in the Korea, Taiwan, other NICs, as well as Thailand and China. From 1986 to July 1989, out of 1,437 new cases of Japanese firms expanding into Asia, 829 were in manufacturing and 262 in commercial, financial, and service sectors. Among the manufacturing cases, electrical and electronic appliances and equipment had the highest concentration (193 firms), followed by chemicals (94) and automobiles and auto parts (73) (Toyo keizai, 1990).

Breaking down Japanese investments by the number of firms entering individual countries, since 1986 Thailand has enjoyed the largest number of

cases. Thailand also ranked second in the world (behind only the United States) in the number of new investment cases from January 1988 through July 1989 (Toyo keizai, 1990). Although other ASEAN countries, such as Indonesia and Singapore, tended to be the object of larger projects and surpass Thailand in terms of the value of Japanese investments, in 1988, Japanese investments in Thailand for the first time were the largest in value among all the ASEAN countries (Keizai Koho Center, 1989). This reflected both increasing labor costs in the Asian NICs (Clifford and Moore, 1989) as well as the general appeal of Thailand to Japanese investors.

Although more recent information is unavailable, data from 1983, even prior to the large increases in Japanese investments in Thailand, indicate the degree of importance Japanese firms have come to occupy in various Thai manufacturing sectors. As seen in Table 6, based on estimates from a survey by the Japanese Chamber of Commerce in Bangkok, Thai firms affiliated with Japanese companies accounted for more than half of all domestic shipments (by value) in the electrical equipment and automobile industries and one-fourth or more of all shipments in steel and textiles.

[Table 6 here]

#### **(b) Asian Economic Integration**

The other factor encouraging Thailand to develop manufacturing industries has been economic integration and the reorganization of industrial structures and corresponding trade practices among Japan, the NICs, and the ASEAN countries. Previously, under import-substitution promotion, individual ASEAN governments tried to encourage foreign firms such as Japanese automakers to produce a majority of their components locally, that is, in the individual host country. This limited industrial development, because of the small size of



domestic markets and limited capabilities for local components production. Since the early 1980s, however, countries have increasingly specialized in different kinds of products as well as parts of the production process, according to their technological capabilities, wage levels, capital availability, and natural resources. At the same time, competition in low-cost manufactured goods between ASEAN countries and the NICs, and between the NICs and Japan, have pushed multinational companies to locate labor-intensive products from the NICs to ASEAN countries and some machinery and electrical or electronic products manufacturing from Japan to the NICs. Even for the same types of products, they have tried to produce higher-priced goods in the NICs as well as Japan.

Other incentives behind this reorganization have been the rising popularity of Japanese products around the world since the 1960s, Japanese restrictions on imports of manufactured goods into its domestic market, and Japan's accumulation of the world's largest trade surpluses during the 1980s. Its economic successes and trade practices made Japan the target of serious international criticism against its relatively closed markets as well as "vertical" trade structure, in which Japanese firms imported fuel and inexpensive raw materials and then exported high value-added finished goods. The type of imbalance occurred with developed countries, such as the United States, as well as with developing countries, especially in Asia, which provided resources for Japanese industries but lagged far behind Japan in industrialization and had few domestic firms capable of exporting manufactured goods to Japan (Watanabe, 1985).

The Japanese government responded positively to these criticisms by opening domestic markets to imports and encouraging Japanese firms to move more production operations overseas, to the United States, Europe, and Asian countries, as well as to buy more manufactured goods from these areas

(Economic Planning Agency, 1989). By the end of the 1980s, Japanese direct investment had in fact led to the export of goods from Japanese overseas subsidiaries not only to Europe and the United States but also to Japan. This was especially true for Japanese subsidiaries operating in Asia. According to a report on 178 firms to the Japanese Ministry of International Trade and Industry (MITI), Asian NICs accounted for 60% (\$707 million in current values) of total intra-company imports of manufactured goods by major Japanese firms in 1987. Asian NICs also accounted for 90% (\$351 million dollars) of total imports of manufactured goods by these Japanese firms based on overseas production contracts (Japan External Trade Organization, 1989).

Industrialization in the Asian NICs as well as ASEAN countries included the growth of non-Japanese Asian firms able to supply manufactured products to Japan. For example, Japanese imports of manufactured products more than doubled between 1984 and 1988, increasing from \$40.6 billion to \$91.8 billion (unadjusted for inflation). Between 1987 and 1988, imports from Asian NICs increased 47%, from ASEAN countries 49%, and from China 58%. These three regions together accounted for 29% of total manufactured products imported into Japan in 1988 (Japan External Trade Organization, 1989).

Thailand was a major beneficiary of these trends, with Thai manufactured products imported by Japan increasing by 144% in only two years, from \$368 million in 1986 to \$897 million in 1988 (unadjusted for inflation). Manufactured products also accounted for 33% of all Japanese imports from Thailand in 1988, compared to 26% in 1986. The largest manufactured product Japan imported from Thailand during 1988 in terms of value, accounting for \$74 million, remained a processed item, precious stones, that did not require much skill or investment. The second largest item, however, was bearings (\$74 million), produced by a single Japanese firm, Minebea, Ltd. Thailand also exported \$8

million of business-machinery parts to Japan in 1987 (Japan External Trade Organization, 1989). In addition, Thailand exported more than \$15 million worth of integrated circuits in 1987 to other countries (Thailand Development Research Institute Foundation, 1989).

Investments from the Asian NICs themselves contributed to development of manufacturing capabilities in ASEAN countries as well as China that were likely to encourage further investment in the region. In the 1980s, for example, direct investment from the Asian NICs approved by local governments in Malaysia, Indonesia, Thailand, the Philippines, and China (excluding NICs as host countries) accounted for 37% of the total approved investment in terms of value; this exceeded Japan's 28% share of this investment (World Bank, 1989).<sup>3</sup> Major factors behind the increase in NICs' foreign investments seemed to be currency appreciation in Korea and Taiwan, the Taiwanese trade surplus (second largest in the world, behind only Japan), increases in real wages in all NICs countries, maintenance of major markets despite protectionist measures, and the desire to secure natural resources (especially by Korean investors). Labor disputes both in Taiwan and Korea, as well as an environmental movement in Taiwan, also appeared to promote overseas investments (Clifford and Moore, 1989). Government policy in Korea and Taiwan supported investments abroad as well but encouraged firms to retain production of more advanced products at home, as seen in the previous discussion of Taiwanese investments in Thailand, which focused on labor-intensive miscellaneous items.

Japanese companies were also leaders in promoting regional economic integration and the reorganization of production operations and trade. In the

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<sup>3</sup> The time periods for counting approved direct investments are as follows: in the case of Malaysia, from 1982 to 1987; Indonesia, from 1982 to 1988; Thailand, from 1984 to 1989; Philippines, from 1982 to 1988; China, from 1983 to 1986.

textile industry, Japanese companies in 1989 were planning to locate product design and production-technology development in Japan while moving more factory operations from the NICs to ASEAN countries and possibly to China (Perry, 1989). In the electronics industry, several Japanese multinationals as well as NIC's companies have already shifted various production operations from the NICs to ASEAN countries. In the automobile industry, Mitsubishi, Toyota, and Nissan were in the process of arranging a network to supply more parts from within the ASEAN countries, with a halving of tariffs on intra-regional trade of components between units of the same manufacturers (Goldstein, 1990; Smith, 1989b; Sanger, 1990).

Thailand is experiencing another increase in Japanese investment for parts manufacturing along with the arrival of major Japanese manufacturers such as Sharp. Although there is a widespread feeling that the Japanese are just transferring vertically integrated manufacturing into Thailand and relying mainly on Japanese affiliated parts manufacturers rather than local parts producers, there is evidence that the Japanese are increasingly using Thai producers for simpler plastic and metal parts, and teaching these suppliers how to upgrade their quality. While plastic mold-making has also advanced, the Thai government and local industry have neglected production of metal molds and dies. Nevertheless, several Japanese joint ventures associated with car makers have begun to export Thai-made molds and dies as well as supply the local market (Handley, 1988). In addition, the Thai government's Fifth National Economic Development Plan announced a new focus on metal working as a priority sector and in 1986 established the Metalworking and Machinery Industries Development Institute with Japanese grant aid.<sup>4</sup>

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<sup>4</sup> These comments are based on personal interviews with Mr. Nagae Tsutomu and Mr. Takeshi Izumi (Japan International Cooperation Agency experts), carried out by Nobuko Ichikawa at the Metalworking and Machinery

Japanese imports in 1988 of relatively advanced manufactured goods from other countries in East and Southeast Asia provided examples of other kinds of products that Japanese firms were considering for production in Thailand. Most required fairly high investments in capital equipment as well as large amounts of labor for assembly operations. These products included audio components (\$218 million) and video recorders (\$54 million) from Korea; battery-operated wrist watches (\$92 million) and portable radios (\$7 million) from Hong Kong; radio receivers (\$83 million), bearings (\$47 million), TV picture tubes (\$18 million), and watch components (\$15 million) from Singapore; chemical elements for electronic components (\$39 million), piezo-electric crystals (\$19 million), microcomputers and microprocessors (\$10 million), and camera parts (\$4 million) from Malaysia; and computer parts (\$25 million), diodes (\$6 million), and microphones (\$3 million) from the Philippines (Japan External Trade Organization, 1989).

These and other examples show how the increasing industrialization and economic integration in East and Southeast Asia constitute an exogenous factor beyond the control of Thai government and company officials that is strongly pushing Thailand to expand its manufacturing sector. In particular, company efforts to reorganize their production systems in Japan, the NICs, and ASEAN countries, taking advantage of different capital, labor, technology, and natural resources available in each country, as well as of political protectionism against Japanese exports from Japan, have led Thailand to become the largest site for new Japanese investment in Southeast Asia and an important processing base for firms from Japan as well as the NICs.

#### 4. STRATEGIC ALTERNATIVES AND IMPLICATIONS

The NIC's versus NAIC's debate can be seen most clearly in the policy positions Thai planners have taken. By the end of the 1980s, two groups had emerged: One supported industrial structural change that promotes labor-intensive export industries along with the improvement of import-substitution industries. The other supported rural development to increase agricultural income and expand the domestic market (Suehiro, 1987a). As shown here, the debate is complicated because each alternative presents a different set of costs and benefits. Nor does it seem that, in the long term, Thailand can afford not to pursue both strategies, although, in the short term, the government may not have the financial resources to support both manufacturing and agro-business development.

To pursue increased foreign investment in heavy industries, for example, Thailand will need immediate and extensive investment to expand urban roads, water supplies, waste processing and port facilities, and similar types of infrastructure. The government has moved in this direction with the Eastern Seaboard Project, started in the 1970s initially to utilize natural gas in Siam Bay. The government once suspended the project in part because of high interest rates and slow growth in the Thai economy during the early 1980s. It later decided to continue, because of the requirements of new foreign investors, primarily the Japanese, and the need to reduce congestion in the port of Bangkok. The government also felt it was important to promote basic industries, such as petrochemicals and iron, that would create jobs as well as attract more advanced manufacturing investments. The whole development of the Eastern Seaboard and the building of two deep-sea ports will cost 133.5 billion baht in a joint-venture investment between the national government and private concerns. All individual sub-projects are scheduled for completion by 1996

(Preyaluk, 1989b). The targeted areas, located about a one-and-a-half hour drive from Bangkok, will operate as a huge production and export zone. The Japanese government's financing organization for developing projects, The Overseas Economic Cooperation Fund (OECF), is a major financial supporter, investing in the construction of the two ports, water mains, gas-separation and fertilizer plants, as well as industrial real estate and engineering services (Overseas Economic Cooperation Fund, 1987).

Thailand also faces a shortage of engineers, which are essential for technology transfer and localization of production operations. This problem cannot be solved quickly because of the small number of engineers produced in Thai colleges (approximately 2,500 in 1986) (Myers and Chalongphob, 1989). Accordingly, the low level of skilled labor and technological know-how in Thailand's small and medium-sized companies makes it difficult for them to serve as subcontractors in new manufacturing industries, especially for Japanese investors with high standards for quality and cost control. Japanese firms have helped by making direct investments in components production to complement local suppliers, although, in the long run, Thailand will need to develop more domestic capabilities to attract further investment and increase manufacturing exports. As a result, the NIC's strategy will require support for education and supplier industries as well as basic industries, such as steel, machinery, and chemicals, in order to reduce dependence on foreign imports of capital goods, intermediate goods, and basic industrial raw materials, especially from Japan.

The intensified urbanization expected to accompany a NIC's type of development may prove to be a heavy burden for the Thai government as well. Agriculture still represented 65% of total employment in 1987, a rather slow shift from 82% in 1960 compared to other countries in East Asia (National Statistical Office, 1960, 1987). For example, Korean agriculture's share of

employment was only 59% in 1965 and fell to 26% in 1985, while in Taiwan it was 47% in 1965 and 18% in 1985 (International Labor Organization, 1965, 1985). Korea and Taiwan already had less agricultural employment and were more industrialized when rapid growth began in the mid-1960s, whereas industrialization has proceeded more slowly in Thailand, leaving the country heavily dependent on agricultural employment. On the positive side, this relatively slower pace of industrialization may have prevented more confrontations between organized labor and management (Yasuda, 1987).

Nevertheless, a shift in non-agricultural employment to a level similar to Taiwan or Korea today would require Thailand to accelerate dramatically the speed of employment creation in manufacturing and services. A rapid transition from an agricultural to industrial society would also require massive migration from rural areas to central Thailand, which would then need massive infrastructure investments to accommodate these people. As discussed earlier, most industrial activities in Thailand are already concentrated in highly-congested Bangkok and the surrounding area, which produced 62% of Thailand's gross domestic industrial output in 1986. The central region, including Bangkok and the surrounding five prefectures, accounted for 82% (Thailand Development Research Institute Foundation, 1989). To improve deteriorating environmental conditions and over-congestion requires dispersing industrial activities outside of Bangkok rather than encouraging more investment there. A NIC's strategy that promotes foreign investment in the Central region may also worsen the economic gap between this and other areas, especially the disadvantaged Northeast, although Thai government officials seem to believe that the Eastern Seaboard Project will reduce urban problems by encouraging firms to leave Bangkok (National Social and Economic Development Board, 1981).

Another question is whether the fragile political system in Thailand will be



able to support the changes that a NIC's strategy might bring. Both Korea and Taiwan have experienced labor and political turmoil as their economies industrialized and the number of urbanized middle-class and working-class people increased. An accelerated transformation of Thailand from an agricultural to an industrial society, while improving income levels through new employment in manufacturing sectors, may also lead to labor and political turmoil, especially if the government does not adequately seek solutions to major problems such as rural poverty and urban congestion.

If it follows a NAIC's strategy, the Thai government faces numerous challenges as well. It will still need more ports, rural roads, factories, and irrigation and waste-processing facilities, although perhaps less than for more advanced manufacturing industries. Even for agro-businesses, furthermore, Thailand must develop new foreign markets and sales techniques to increase exports, especially with growing international competition in agricultural goods. There are nearby large potential markets in Vietnam, Laos, and Cambodia, and thus a regional economic policy targeting the Northeast region of Thailand would probably aid Thailand's agricultural development. Politically, however, this policy seems difficult to carry out under present conditions.

Under the NAIC's strategy, improvement of rural income would have to come primarily from domestic investment and growth in the agricultural sector. Yet agricultural productivity in Thailand has been relatively low and not increasing. As a result, although new investment and agricultural technology may change this trend, economic growth under a NAIC's strategy and failure to take full advantage of foreign investment may be too slow to solve rural poverty, resulting in as much or more social and political unrest as under a NIC's approach. Also under a NAIC's approach, the government would have to intervene more in the economy to bring about a fairer distribution of land as

well as profits among agro-businesses, wholesale merchants, and farmers; however, the traditional policy of the Thai government, reinforced in the 1987-1991 National Economic and Social Development Plan, has been to limit the involvement of the government in a free-market economy (National Economic and Social Development Board, 1987).

A policy to promote agro-industries, on which the NAIC's strategy is based, brings certain constraints as well. Technology accumulated for processing agricultural products is not easily applicable to other industries; forward and backward linkages in agro-industries are fewer, and less likely to create an expansion of jobs, than in manufacturing sectors such as iron, electronics, or automobile assembly; uncontrolled agricultural expansion will also contribute to the destruction of valuable natural resources such as Thailand's forests. Thus, a NAIC's strategy has both negative and positive aspects, and will probably not expand Thailand's industrial structure and economy enough to meet future needs of the population or overcome rural as well as urban poverty.

## 5. CONCLUSION

On the surface, the NAIC's approach appears to have many benefits. It would rely primarily on domestic resources, address most directly pressing problems in Thailand such as rural poverty by promoting agricultural development and employment in rural areas, and not encourage further urban congestion in the Bangkok area as much as a NIC's strategy. Agricultural productivity has lagged in Thailand, making the NAIC's strategy somewhat risky, although further manufacturing investments will require costly infrastructure investments without providing employment for the vast majority of Thailand's population, which remain largely in rural areas but may continue to migrate to

Bangkok under a NIC's strategy, worsening existing urban congestion.

Meanwhile, Japan's growing influence in Thailand, as well as industrialization and economic integration among the ASEAN countries in general, are providing strong incentives for Thailand to move closer to the NIC's model. In terms of economic activity and employment, the results of Japanese investments have been positive, generating the equivalent of millions of dollars in domestic production and export sales as well as 250,000 jobs by mid-1989 (Toyo keizai, 1990). On the other hand, Japan has also encouraged the Thai government to invest in costly projects such as the Eastern Seaboard, at the expense of, for example, more investment in agriculture, land reform, education, public transportation, health care, or homes for the rural and urban poor. In the past, the Thai government has tried to put an equal emphasis on investment in both agricultural and non-agricultural industries, but its financial situation has made this increasingly difficult (National Economic and Social Development Board, 1987).

Nor do Thai government officials and planners, or private citizens, fully control what direction Thailand follows, since the government is unlikely to exclude much-needed foreign investment and technology, especially from Japan. Many Thai businessmen, workers, and government leaders want the benefits of Japanese investment, such as new jobs, technology transfers, and access to foreign markets. Japanese government officials and companies want access to Thailand's resources, labor, and markets, especially as a production base from which to export. Japan has provided aid to Thailand, mainly in the form of loans for large-scale projects (Overseas Economic Cooperation Fund, 1987). Because of recent economic growth, however, the Japanese government plans to cut off grants for Thailand and restrict future aid to loans (Duangkamol, 1989). This could become a major problem, since the Japanese expect Thailand to

continue constructing an industrial infrastructure as well as maintain political stability.

In conclusion, choosing either a NIC's or NAIC's strategy is probably not desirable for Thailand, since both approaches have different benefits. In the long run, in addition to agro-industries, Thailand will have to develop manufacturing sectors as called for in the NIC's approach, because it does not seem possible that agricultural productivity and agro-business markets will grow enough to solve Thailand's problems of rural poverty and halt migration into the industrialized Central region. Regardless of whether Thailand tries to become a NIC or NAIC, the country will also have to construct an appropriate infrastructure for further industrial development as well as invest in support for rural areas, such as roads, utilities, education, housing, and health care. The NAIC's alternative, therefore, does not appear to be a distinct and final solution for Thailand but rather an intermediate strategy. If balanced with gradual manufacturing investments as well as continued assistance from Japan but targeted more toward solving rural problems, this should help Thailand move from a primarily agricultural society to a mixed agricultural and industrial economy, utilizing its domestic natural and human resources rather than relying too heavily on foreign investment and influence.

**Table 1: Gross Domestic Product by Industrial Sector (1975 and 1988)**

( U.S.\$1,000,000,000 nominal values, % )

	1975	1985	1988
Gross Domestic Product	\$303	\$1,014	\$1,466
<u>Breakdown by Sector (%)</u>			
Agriculture	26.9	16.8	16.9
Manufacturing	18.7	22.1	24.4
Trade	19.2	15.1	15.8
Services	11.1	14.1	13.4
Others	24.1	31.9	29.5
Total	100.0	100.0	100.0

Source: Thailand Development Research Institute Foundation (1989), p. 4.

**Table 2: Employment by Sector, Selected Years (1975-1986)**

( 1,000, % of total employed in parentheses )

	1975	1980	1983	1986*
Total Population	41,390	46,720	49,730	52,650
Total Labor Force	18,255	22,728	25,849	27,660
Total Employed	18,181	22,524	25,184	26,691
Agriculture	13,270 (73)	15,943 (71)	17,401 (69)	17,815 (67)
Manufacturing	1,356 (7)	1,789 (8)	1,843 (7)	2,069 (8)
Others	3,555 (20)	4,792 (21)	5,939 (24)	6,807 (27)
Unemployed	74	204	614	969

\*Note: 1986 figures are estimates.

Source: Asian Development Bank (1989), pp. 318-319.

**Table 3: Farm Land Rented (1975 and 1986)**

( rai [1 rai = 0.16 hectare], % )

Land Area	Year	Rented Land	Change (%)
<b>Nationwide</b> 320,696,888 (100%)	1975	13,592,363	
	1986	19,240,941	+41.6
<b>South</b> 44,196,992 (18.8)	1975	399,059	
	1986	686,181	+71.9
<b>North</b> 106,027,680 (33.1)	1975	3,408,576	
	1986	5,928,489	+73.9
<b>Northeast</b> 105,533,963 (32.9)	1975	1,289,577	
	1986	3,247,668	+251.9
<b>Central</b> 64,923,253 (20.2)	1975	8,495,151	
	1986	9,378,603	+10.3

Source: Preyaluk (1989a), p. 233.

**Table 4: Paddy Yield Comparison, Selected Years (1975-1988)**

( kilograms of rice produced per hectare )

Country	1975	1980	1986	1987	1988
Afghanistan	2,071	2,174	2,243	2,252	2,290
Bangladesh	1,853	2,020	2,178	2,178	2,190
Burma	1,816	2,774	3,028	2,957	3,000
Cambodia	1,429	1,084	1,176	1,200	1,250
China	3,518	4,134	5,338	5,423	5,344
India	1,858	2,000	2,202	2,099	2,412
Indonesia	2,630	3,293	3,943	4,075	4,202
South Korea	5,324	4,308	6,369	6,019	6,420
Malaysia	2,661	3,645	2,932	2,981	3,034
Philippines	1,721	2,233	2,669	2,623	2,749
Taiwan	4,135	4,837	5,338	5,428	5,344
<i>Thailand</i>	<i>1,825</i>	<i>1,909</i>	<i>2,052</i>	<i>1,986</i>	<i>2,145</i>

Source: Asian Development Bank (1989), p. 18.

**Table 5: Japan's Overseas Investment Stock by Region and Industry (1989)**

( U.S.\$1,000,000, % )

Industry	North America	Latin America	Asia	Middle East	Europe	Oceania & Africa	Total
Metals	2,553	1,933	2,268	66	328	522	7,670
Chemicals	2,311	590	1,785	1,128	594	133	6,541
Elec. Machinery	5,952	491	2,414	14	1,261	63	10,196
Trans. Equip.	3,030	1,050	1,183	4	913	776	6,956
Textiles	493	439	1,380	4	303	50	2,669
General Machinery	2,610	378	1,036	11	626	55	4,716
Lumber & Pulp	1,377	200	389	--	5	128	2,099
Other Manufacturing	5,618	356	1,916	46	826	238	8,997
<b>Total Manufacturing</b>	<b>23,944</b>	<b>5,437</b>	<b>12,371</b>	<b>1,273</b>	<b>4,857</b>	<b>1,961</b>	<b>49,843</b>
Mining	1,647	1,557	6,912	393	1,103	2,337	13,949
Commerce	11,693	1,508	1,913	20	3,955	922	20,011
Finance & Insurance	12,370	10,990	2,509	123	14,853	1,031	41,876
Transportation	239	9,235	584	2	101	2,181	12,342
Others	25,198	2,890	7,938	1,527	5,295	5,487	48,335
<b>Total</b>	<b>75,091</b>	<b>31,617</b>	<b>32,227</b>	<b>3,338</b>	<b>30,164</b>	<b>30,919</b>	<b>186,356</b>

Source: Japanese Ministry of Finance, cited in Keizai Koho Center (1989), p. 57.



**Table 6: Share of Japan-Affiliated Firms in Thai Manufacturing Output (1983)**

( % )

Industry	Japan-Affiliated Firms*
Textiles	28.8
Automobiles	57.1
Steel	24.7
Foodstuffs	3.1
Chemicals	11.3
Electrical	56.2

\*Note: This share was calculated on the basis of a questionnaire sent to individual firms collecting data on total output and employment. The figures were then adjusted by total employment in each sector at Japan-affiliated firms. Sectoral value-added data were used to estimate total shipments and calculate the share of Japan-affiliated firms.

Source: Japanese Chamber of Commerce in Bangkok (1984), p. 10.

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